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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|------------------------------|------------------|
| 10/520,976 | 01/11/2005 | Paul E. Adams | 3190R-02 | 6467 |
| 7590 Lubrizol Corporation Patent Administrator Mail Drop 022B 29400 Lakeland Boulevard Wickliffe, OH 44092-2298 | | 03/27/2007 | EXAMINER GOLOBOY, JAMES C | |
| | | | ART UNIT 1714 | PAPER NUMBER |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | MAIL DATE | DELIVERY MODE | |
| 3 MONTHS | | 03/27/2007 | PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/520,976 | ADAMS ET AL. | |
| | Examiner | Art Unit | |
| | James Goloboy | 1714 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 11 January 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-12 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/11/2005.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1-3, 6, 8, and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Gemmill (U.S. Pat. No. 4,786,426).

In the reference's claim 1, Gemmill discloses an oxazoline compound comprising two hydrocarbyl R groups. From column 4 line 51 through column 5 line 43 (Examples 1-2), Gemmill discloses that the compounds are made by the reaction of a carboxylic acid (oleic and myristic acids, specifically) and an aminoalcohol. The oxazoline compounds therefore meets the limitations of claim 1(a). In column 6 lines 21-26, Gemmill discloses a fluid composition comprising the oxazoline compound and a dispersant, meeting the limitations of claim 1. The fluid composition includes an oil of lubricating velocity, as recited in claim 8, and also an antioxidant and dispersant, as recited in claim 10.

The aminoalcohol used in the examples of Gemmill is 2-amino-2-(hydroxymethyl)-1,3-propanediol, which is trishydroxymethylaminomethane, as recited in claim 2. The mole ratio of carboxylic acid to aminoalcohol in the examples of Gemmill is 2:1, falling within the range recited in claim 3.

As the carboxylic acids used in the examples of Gemmill are oleic and myristic acids, the hydrocarbyl groups of the products will have at least about 8 carbon atoms, meeting the limitations of claim 6.

In the abstract, Gemmill teaches that the lubricant is used to reduce friction in an internal combustion engine, therefore meeting the limitations of claims 11 and 12. In column 5 lines 46-68, Gemmill describes the use of the lubricant in a transmission (lines 64-66), also as recited in claims 11 and 12.

3. Claims 1, 6-8, and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Papay '432 (U.S. Pat. No. 4,293,432).

In column 1 lines 43-47 Papay discloses the reduction of engine friction through the use of a lubricant containing the reaction product of a fatty acid and monoethanolamine. From column 2 line 57 through column 3 line 2 (Example 1), Papay '432 discloses an example where the reaction product is formed from oleic acid and monoethanolamine, meeting the limitations of claim 1(a) and 6. In column 6 lines 1-11, Papay '432 discloses a composition containing the product of example 1, a lubricating oil, and a dispersant (polyisobutetyl succinimide or tetraethylenepentamine), meeting the limitations of claims 1 and 7-8. In column 4 lines 58-60 Papay '432 discloses that the dispersant can also be a Mannich dispersant, as recited in claim 7. The composition disclosed in column 6 of Papay '432 also contains multiple phosphorus compounds and a detergent, as recited in claim 10. The use of the lubricant to reduce engine friction, as disclosed by Papay '402, meets the limitations of claims 11-12.

Art Unit: 1714

4. Claims 1-2, 4, 6, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Horodysky (U.S. Pat. No. 4,617,333).

In column 1 lines 52-57, Horodysky discloses lubricating fluids comprising additives that are derived from oxazolines. From column 3 line 62 through column 4 line 2 (Example 1), Horodysky discloses a suitable oxazoline that comprises the reaction product of isostearic acid and trishydroxymethylaminomethane, meeting the limitations of claims 1(a), 2, and 4. In column 2 line 67-68 Horodysky discloses that the composition can also comprise a dispersant, meeting the limitations of claim 1(b), or detergents, as recited in claim 10.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horodysky in view of Bridger (U.S. Pat. No. 4,162,224).

The discussion of Horodysky in paragraph 4 above is incorporated here by reference. Horodysky discloses a composition in accordance with claim 1, comprising a friction modifier derived from the reaction of isostearic acid and trishydroxymethylaminomethane. In column 2 lines 67-68, Horodysky discloses that the composition may further contain an antiwear agent, but does not disclose specific antiwear agents.

Bridger, in column 1 lines 51-56, discloses an antiwear additive derived from bis-oxazolines. In column 2 lines 22-24, Bridger teaches that the bis-oxazolines may be prepared by the reaction of octadecylsuccinic anhydride and trishydroxymethylaminomethane.

Therefore, it would have been obvious to one of ordinary skill in the art to derive component a of claim 1 from a mixture comprising isostearic acid and octadecylsuccinic anhydride, as recited in claim 5, in order to form both the friction modifier of Horodysky, and the antiwear agent of Bridger.

8. Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gemmill in view of Papay '201 (U.S. Pat. No. 5,652,201)

The discussion of Gemmill in paragraph 2 above is incorporated here by reference. Gemmill discloses a fluid composition meeting the limitations of claim 1, and in the sample compositions disclosed in column 6 lines 29-37 (Table 1), teaches a

concentration of 4% by weight of the oxazoline additive in the lubricant composition, falling within the range recited in claim 9. However, Gemmill does not disclose the concentration of the dispersant in the lubricant composition, or the specific types of dispersants that are suitable.

In the table in column 50 lines 10-15, Papay '201 discloses that the particularly preferred range for the concentration of dispersant ("component b") in a lubricating composition is from 1 to 8% by weight, overlapping the range recited in claim 9 and matching the 1% endpoint. From columns 15-24, Papay '201 discloses that the dispersant can be carboxylic (columns 15-18), succinic (columns 18-20, Mannich (columns 20-23), or amine (column 23 lines 14-28).

It would have been obvious to one of ordinary skill in the art to use the types and concentration of dispersant taught by Papay '201 in the lubricant composition of Gemmill, as Papay '201 teaches that they are effective in preventing deposits.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zaweski (U.S. Pat. No. 4,208,293) discloses a fluid comprising an additive derived from the reaction of a carboxylic acid and an aminoalcohol, but does not disclose a fluid further comprising a dispersant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Goloboy whose telephone number is 571-272-2476. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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